AGREEMENT BETWEEN THE CITY OF EVERETT AND THE UNIVERSITY OF WASHINGTON FOR SERVICES RELATED TO DEVELOPMENT OF NEW PROJECTIONS OF CHANGING HEAVY PRECIPITATION IN EVERETT

This Agreement is made and entered into by the City of Everett, a municipal corporation under the law of the State of Washington, herein referred to as the "City" and the University of Washington, herein referred to as "UW", an institution of higher education and an agency of the State of Washington having campuses located in Seattle and in Bothell, Washington, collectively referred to as the "Parties," for UW to provide services to the City to help evaluate the impacts of projected climate change on the City's combined sewer overflow (CSO) discharge points and stormwater management effectiveness on the City's aquatic resources ("Project").

I. Purpose

This Agreement provides the terms under which UW, under the direction of the Investigator as described in Exhibit One ("Scope of Work"), will provide services to the City as outlined in Exhibit One, attached to this Agreement and incorporated herein and made a part hereof.

II. Provision of Services

- A. The provision of services under this Agreement will be managed for the City by Jim Miller, Engineering Superintendent, or other representative as designated by the City's Public Works Director, and for UW by technical contact Guillaume Mauger or administrative contact or other representative(s) as designated by UW ("Agreement Administrators").
- B. In the event that a disagreement between the parties arises in the administration and provision of services under this Agreement, it shall be referred for informal resolution to the City's Public Works Director or designee, and the Dean of the College of Engineering or other representative designated by UW. This provision shall not be construed as prohibiting either Party from seeking enforcement of the terms of this Agreement, or relief or remedy from a breach of the terms of this Agreement, in law or in equity.

IV. Billing and Payment

- A. Estimated costs to complete the scope of work are as outlined on Exhibit Two, attached to this Agreement and incorporated herein and made a part hereof.
- B. UW shall not proceed to perform any unidentified tasks not specifically included in the scope of work in Exhibit One until authorized by the City's point of contact.
- C. It is in the intent of the parties that the specific tasks and deliverables described in Exhibit One would be performed for a cost not to exceed \$19,984. This leaves \$10,016 as an amount available for undefined tasks.
- D. UW will provide the City with documentation that such costs to provide services under this Agreement have been incurred in the form of usual and customary records from UW's accounting system.
- E. Expenses to be reimbursed by the City shall be included on itemized invoices and shall be subject to approval by the City.
- F. Payment to UW for approved invoices will be made by the City within sixty (60) days of receipt of invoices at and sent to the following addresses:

Jim Miller Grant and Contract Accounting

Engineering Superintendent Attention: UW OSP #A99492

Everett Public Works University of Washington

3200 Cedar St. 12455 Collections Drive

Everett, Wa 98201 Chicago, IL 60693

G. The City represents that funds for service provision under this Agreement have been appropriated and are available for 2016. To the extent that service provision in future years requires appropriations beyond current appropriation authority, each of the Parties' obligations are contingent upon the appropriation of sufficient funds by that Party's legislative authority to complete the activities described herein. If no such appropriation is made for either Party, this Agreement will terminate at the close of the appropriation year for which the last appropriation that funds these activities was made.

V. Effectiveness and Duration

A. This Agreement is effective upon signature by both Parties and shall remain in effect until December 31, 2017.

VII. Counterparts

This Agreement may be executed in counterparts.

IN WITNESS WHEREOF, the Parties hereto have executed this agreement on the 1^{st} day of April, 2016.

Approved as to Form

By:

Title: James D. Hes, City Attorney

Date: 4//3//

City of Everett, Washington:

Title: Ray Stephenson, Mayor

Date: A 4/15/2016

Attest

Sharon Fuller, City Clerk

Date: 4/15/2016

University of Washington:

Print Name: Roberta L. Mondares

Title: Grant and Contract Administrator and Authorized Signing Authority

Office of Sponsored Programs

Date: 04/01/2016_

gas scenario, and another based on a warmer model run and a high scenario.² Both will include the years 1980 through 2099.

CIG researchers will develop estimated changes in exceedance probabilities for the city of Everett (e.g.: changes in the 2-, 10-, and 50-year events). Results will be summarized in terms of the change in both the magnitude (percent increase/decrease) and probability of heavy rain events (e.g.: how frequently will the 10-year event occur in the future?). The specific metrics analyzed will be determined in consultation with project sponsors. Changes will be evaluated for both short- (1 hour) and long-duration (48-72 hour) precipitation events.

In addition, city planners will identify several locations for which CIG researchers will produce an hourly record of simulated precipitation for the full 21st century. These can be used as input to hydrologic models, or simply as a complement to the changes in exceedance probabilities described above. Each location must have daily observations of precipitation that are sufficient for bias-correction (~30-year record is ideal) – researchers at CIG will help identify and evaluate available weather observations. For each site, an hourly time series of 21st century precipitation will be produced, obtained by bias-correcting simulated precipitation to match the observations.

Finally, this scope includes staff time for additional analyses and products that are as yet defined, and will be specified over the course of the project based on the needs of City staff.

Products

- 1. Projected change in the intensity, duration, and frequency of heavy rain events for the City of Everett.
- 2. Hourly time series of precipitation for historical and two future projections, developed for specific locations of interest (selected in consultation with city staff).
- 3. Additional data products, to be defined in collaboration with the City of Everett.
- 4. A short report describing the methodology and summarizing the results, including graphics and tabulated summaries.

UW researchers will work with city staff to ensure that products can be used as input to planning and hydrologic modeling.

Timeline

Start date:

03/01/2016.

Final products:

12/31/2016.

² For more information on regional climate projections and greenhouse gas scenarios, see the CIG *State of Knowledge* report: http://cses.washington.edu/cig/reports.shtml#sok

agreement

EVERETT CITY COUNCIL AGENDA ITEM COVER SHEET

PRO.	JECT	TITI	E:
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Agreement with the University		Briefing	COUNCIL BILL #	
of Washington for		Proposed Action	Originating Department	Public Works
development of new		Consent	Contact Person	Jim Miller
projections of changing heavy	_X	Action	Phone Number	425-257-8880
precipitation in Everett		First Reading	FOR AGENDA OF	February 24, 2016
		Second Reading		
		Third Reading		
		Public Hearing		
		Budget Advisory	Initialed by:	
			Department Head	Α.
			$C \Lambda \Lambda$	

Location City of Everett	Preceding Action	-	achments reement	Department(s) Approval Public Works, Legal
Amount Budgeted	\$30,000			
Expenditure Required	\$30,000		Account Number: 401	5600 109 923 410
Budget Remaining	-0-			
Additional Required	-0-			

Council President

DETAILED SUMMARY STATEMENT:

Over the past decade, heavy rainfall events in Everett have been larger and more frequent than would be expected based on past history. This has also been observed in King County and Seattle. The Climate Impact Group at the University of Washington (UW) has been doing studies of this phenomenon for King County. The agreement with UW is to evaluate the impacts of projected climate change on the intensity, duration and frequency of the City's heavy precipitation events. Data will provide for setting more accurate criteria for the design of upgrades to the combine sewer overflow (CSO) control system as well as the separate stormwater systems.

RECOMMENDATION (Exact action requested of Council):

Authorize the Mayor to sign an Agreement with the University of Washington for development of new projections of changing heavy precipitation in Everett, substantially in the form provided, in an amount not to exceed \$30,000.

Council approved